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EDITED BY WILLIAM HUNTING, F.R.C.V.S.

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EDITORIAL NOTES.

We publish this week a portion of our report of last meeting of Council. The sitting was a long one and the report we confess is abbreviated. It commences with a letter from Principal Veterinary Surgeon Lambert, which discloses a serious and deplorable state of affairs. Comment on this is deferred till next week, as the subject is referred to again in the concluding portion of the report.

Three gentlemen were elected to the highest honour in the gift of the profession—Honorary Associate. Two were foreigners, and one an Englishman. The latter gentleman, Mr. Kendal, obtains his honour for having established a veterinary School in Australia. The foreign Associates are men of note, both having added useful matter to our common stock of veterinary knowledge. Too much care cannot be taken in the selection of Honorary Associates. We cannot afford to make this degree cheap, and it is necessary to jealously guard against the admission of any but really first-class men. Something more than mere respectability and business standing should be required in any man proposed for the honour. It should be reserved for those who have done something for the advancement of the profession or for the progress of veterinary science. These three have.

The Finance and Registration Committees' reports were of only formal interest, but the latter will lead to a settlement of some important questions in reference to our title and the rights of unlicensed practitioners.

The Charter Sub-Committee was only referred to, its work not yet having progressed so far as to necessitate a report to Council. An attempt was made to direct attention to the action of the Committee in delegating its duties to a sub-committee, but the Council gave no encouragement. The great importance of the Charter question induced the Council, at a previous meeting, to appoint a committee of their whole body to consider it, but for some occult motives a majority managed to transfer their duties to the Parliamentary Committee, which consists chiefly of men opposed to the three points mentioned on Mr. Mulvey's circular, and almost unanimously approved by the profession. It has been said that we should give the Parliamentary Committee credit for disinterestedness and for honesty of purpose in deliberating upon a New Charter and reporting upon it to the Council. It is because we do this that we so strenously object to their being entrusted with the matter. The leading men on this Committee have positively expressed the strongest objections to the three most important points required in a New Charter. The profession has demanded a New Charter for three special reasons. The majority of the Parliamentary Committee is opposed to every one of these demands, and recognising their honesty of purpose and contempt for any change of mind, we fear they are obliged to report adversely to the wishes and hopes of the profession.

The Committee entrusted with the action to be taken concerning Koch's discovery were unfortunately given on this appointment full powers to act. The Council at the time they granted this had in their minds the possibility of some rapid development in the use and manufacture of Koch's lymph and, to prevent delay should any unexpected development occur, gave full powers to the Committee. Not one single point has been made clearer since that day, unless it be that the lymph fails to do all that was expected of it. Every scientific man and every scientific body regrets the rush that was made so prematurely. Our Committee however is anything but scientific, and they seized the first opportunity to carry out the original wishes of the proposer of the move. They reported to Council what they had done, and their action met with almost unanimous disapproval. They however insisted on their formal right and ignored the feeling of Council, even to the extent of asserting "it won't matter whether you adopt it or not; you can do as you like." Probably no great harm will result, except the expenditure of money, and it may be that some good will follow if it be only to make Council more carefnl, in delegating its uncontrolled power to a Committee. Even in doing a wrong thing this committee failed to do in a nice manner. They resolved that if perchance they were successful in getting some lymph that it should be used at the Veterinary Schools of London and Glasgow—a most invidious limitation, considering that there are two schools in Edinburgh, and that one of them contains our greatest authority on Tuberculosis. It really seems as if an effort had been made to ignore Professor McFadyean. The Council can stand a good deal from it committees, but it could not stand this, and marked its sense of the proceeding by peremptorily adding to the Committee the names of the Principals of all the Schools. We shall always have work bungled in committee if Council continues to select these bodies, as it does now, with more reference to the personality of their members than their fitness for the work required. Scientific Committees should consist of scientific men, and Educational Committees of educated men. Possibly this sounds Utopian.

THE MATRICULATION EXAMINATION.

A writer in the lay press recently characterised veterinary education as "lopsided," and we fear with much justice. Our Council is a good deal responsible for our education, and those who know the composition of that august body will not be surprised that the result is often somewhat "mixed." Possibly it would be difficult to find a corporate body with a Council less fit to legislate on educational matters, but their confidence is unbounded, and they approach this, as they do other matters, with a courage worthy of more appropriate circumstances. Every now and then they have a reasonable impulse and do the correct thing, but the feeling is only transitory, and the period of lucidity is soon followed by one of confusion.

Not long ago our Council consulted the College of Preceptors as to the quality our Matriculation Examination should possess. The scholastic experts gave their opinion, and it was almost accepted, but some of our own educational experts ventured to know better, and the Council refused to adopt the advice given. Many meetings have since been held, and at each alterations have been made, but at last we have decided on a scheme of Examination which shall protect our portals against the admission of the ignorant. The subjects for our Matriculation Examination have been agreed upon by a majority, and the result is curious. It consists of a sort of compromise between the fifth standard of the School Board, and the fifth form of a public school—a fifth-rate English education with a smattering of Latin, and an indefinite knowledge of either French or German. One modern language and one classical are now compulsory, and so is "reading aloud."

Who is to carry out the examination is not yet determined, but probably the work will be done in England by the College of Preceptors, and in Scotland by the Educational Institute. These bodies may be able to practically carry out the scheme, but it is upon their tact and discretion we must rely. Hitherto the Matriculation Examinations have been entirely delegated, and the Council's responsibility has been nominal. What standard was reached by the papers set, and what standard was reached by the candidates, nobody knows. No responsible representative of the Council ever attended, and no report was ever asked for. In future it is to be hoped some direct surveillance may be exercised, if only that the Council may become informed of the weak points in their arrangement.

One very curious regulation was adopted, the effect of which we shall watch with interest. A long list of Examinations are named, a certificate of success in which exempts a student from further educational examination. It is now a rule that each of these must contain all the subjects we demand in *our* examination. "Reading aloud" is one of our tests, and we rather think is one not to be found in many of the higher examinations which formerly gave exemption. Will a University examination be declared insufficient if it fail to include this School Board performance? It must be if our rules are carried out!

Perhaps the funniest part of our Matriculation Examination is the division into two parts—obligatory and optional. The latter division contains a list of five or six subjects, but offers no inducement whatever to students to attempt them. The optional subjects have absolutely no *raison d'être*—not one of them is compulsory, not one of them offers any inducement to the candidate to accept it; not a mark towards "passing" is afforded by all of them. They are simply retained because they were found on the previous arrangement, and apparently because a majority of the Council fancied they added lustre to our examination. A weak attempt to apologise for their appearance was made by carrying a resolution that any student who successfully negotiated any one of them should be advertised as a superior person; and this notwithstanding that three of these subjects are elementary portions of sciences which later on the profession demand a thorough knowledge of. The optional subjects are simply a pretence, and an indication of the mental calibre of the majority of the Council. If we find it impossible to disguise our ignorance we surely need not invite ridicule by publicity.

What is education? and what sort of preliminary education is necessary and expedient for a man who has to graduate in Physiology, Pathology, Therapeutics, and Surgery, and afterwards practice as a veterinary surgeon with a chance of earning the average net income of £4 per week? This is a problem worth consideration, and we venture to say not yet properly solved.

CASES AND ARTICLES.

A FEW THOUGHTS ON INFLUENZA, "WHAT IS IT"?

Written with a view to the awakening of thought, and inviting discussion by Scientists in our Profession.

By Thos. Greaves, F.R.C.V.S.

The epidemic which has been raging lately with so much virulence, and in some districts with such fatal result is undoubtedly attributable to atmospheric influence; it has partaken of only one of the forms or types of influenza which occasionally invade our districts. There has been the drooping eye-lids, swollen legs and sheath, fidgetty and painful limbs, great tendency to very cold ears and skin, increased temperature and pulse—in many cases pulse almost imperceptible, loss of appetite, dullness, and frequently great prostration, it would seem stagnation is general—but in nearly every case an entire abscence of profuse nasal discharge—

abscesses in the throat, or accompanied with inflammation of the lungs or pleura. In nearly every *post-mortem* examination it is found there exists a condition of the blood which I purpose devoting this paper chiefly to. If in any of my points I seem to exceed the bounds of ordinary description I trust my critics will think it over, and not condemn my views without a fair and serious consideration.

The black, viscid, abnormal state of the Blood.

How is this produced, and what is the inference? In many cases the pulse is almost imperceptible in the temporal arteries, and in the submaxilliary, as if not a particle of blood was passing in these arteries. I have opened these arteries during life and found them perfectly empty, if you open the jugular vein with your largest phleam you cannot get a teaspoonful of blood, (I mean in these cases where pulse is almost imperceptible). That which is felt by the nicest and most delicate touch, is simply a quiver, or a vibratory motion in the mtery, and dependent probably on natural or arechanical action in the vessels themselves, and more or less by the systole and diastole action of the heart itself, whilst no fluid whatever is passing through them. Now if this argument holds good in the two arteries named it holds equally good in the arteries in the whole system, both the anterior and posterior circulatory systems. This gives rise to the question—

Can a horse live, and for how long a time, without blood in the arteries?

If the absence of blood in the arteries is only of short duration, just while the disease is at its height, a change of circumstances producing favourable change in the lungs and heart, I think life may be continued for a time, and the abnormal blood revivified gradually, provided always, the vital organs are in a sound and healthy condition.

What is the cause and nature of the black, thick blood?

I have held the opinion that in most cases lately the horses have sustained a severe chill. It may have been repeated; not one sudden violent chill, but such as has occurred more or less for several days before symptoms show themselves; probably having been overheated then stood a time in intense cold, the blood has become perished, its vitality has vanished, it is a thick viscid fluid without life in it, settles in the ventricles and large blood-vessels near the heart, and cannot be moved, the heart beats and beats on it but cannot move this dead weight, or propel it, hence this weak imperceptible pulse. Now is this condition of the blood purely referable (1) to direct effect of a sudden or continuous chill of the whole body, or (2) to a sudden and continued total suspension of endosmosis and exosmosis in the air cells, thereby causing a complete cessation of this vital process, and of the oxygenation and re-vivification of the blood and all its carbonic acid gas retained in it.

Can life be continued when the blood has no life in it?

I think it can for a time. I am beginning to feel convinced that there is an inherent power in nature in the system, that is, in the brain and nervous system, and in the sympathetic system of nerves to carry on the function of life for a time.

Perhaps my critic would advise me to call it an abnormal state of the blood, and not blood with no life in it, well let us see what he makes of it, perhaps he will say it is essentially a disease of the blood, as to this I do not entirely agree with him. I know the blood has been subjected to alterations in its nature, but this I say is simply and purely attributable to the carbonic acid being retained in it, and no oxygen having been able to be received, and make its impression on it in the lungs.

As well might you argue that a baby that dies at a baby-farm died of disease when it is proved every vital organ is sound, but that it had received no support or nutriment for a week. Perhaps some critic will advance the scientific theory of the microbe or bacillus of influenza; this has more feasibility in it. I want scientist critic to be very clear on this point, I am not yet a convert.

How fares it with the capillaries during this struggle for life?

We know on our first visit the pulse is up, instead of 40 or 42, it is 72, or 84, or 96, it may get on to 120, the temperature equally disturbed, ears and skin deathly cold; still, serious as he is, his breathing may not be accelerated, and if prompt measures are at once taken, being placed in the most favourable circumstances, and every comfort attended to, provided the animal is a young one, the vital organs sound and healthy, he may weather the storm. The contemplation embodied in the heading of this section very likely had bewildered our most experienced, as well as the most scientific Veterinary Surgeons, still we must not shirk it, let us face it as men with a firm and resolute purpose in view. It is my opinion they are simply lying inactive, dormant if you like, a state of collapse, they cannot help themselves, they are waiting until assistance comes to their help; in the mean time every hour, nay every minute, the whole system is becoming more and more saturated with poison, which in the end causes a failure of the heart's action, and death. Our last enemy, can score another victory.

Well, what can be done?

Place your patient at once in a roomy loose box, get his ears, neck and body thoroughly warm and comfortable, give him a pint of hot ale with some carbonate ammonia in it, or 1 oz. tincture pimento and 2 oz. gin, or some stimulant of this kind two or three times a day, and also mildly stimulate the sides, once only. Nature will in most cases respond to these efforts to help her, and the mass of black, abnormal blood will by little and little become revivified and in a few days the blood will assume its arterial colour and character, and then we can score another victory. You may use coke fires in ever

stall, use fumigations, sprinkle lime and other disinfectants freely all over the floor, attend to ventilation and drains, allow the horse to drink one quart of hay tea. bran tea, or pure cold water every hour, and give him anything he likes to eat—in giving medicine as a drink great care must be taken since the horse is so stiff, and some have such a tendency to become light-headed that in raising the head to give the drink there is danger of falling from syncope—but something more is urgently wanted; and let me throw out this idea to our scientist, that experiment be at once instituted of injecting pure oxygen, or pure nitrogen as the case may be found to require. into the air the animal breathes with a view to re-establish vigorous function of endosmosis and exosmosis in the lungs, this effected, it would leave every other treatment far in the shade.

CYSTIC CALCULI IN A DOG.

On Monday November 3rd, 1890, a cross-bred fox terrier dog was brought to the infirmary suffering from retention of the urine. He made constant attempts to urinate bnt only succeeded in bringing away a few drops at a time. He was very fat and was about twelve years old.

I ordered him a dose of castor oil and, believing the retention to be due to stricture, hot baths. The following day I called to see him and finding no improvement attempted to pass the catheter, but could not get it more than four or five inches up the urethra. I then ordered the hot baths to be continued and gave small doses of antacids. He had no relief, however, and a day or two after, at request of owner, I administered a dose of hydrocyanic acid.

Post-mortem examination showed the bladder very distended and inflamed, and containing more than ten ounces of muddy urine. At the mouth of the bladder were four small calculi, each about the size of a large hemp seed. The inflammation continued down the urethra as far as the penial bone. Just at the entrance of the urethra into the groove on the under surface of the bone, I found five more calculi, similar to those in the bladder with the exception that one was twice as large as any of the others. The groove was too narrow to allow them to pass and thus, becoming impacted, they had formed the obstruction I had felt with the catheter.

The treatment I ought to have adopted would have been to cut down upon the urethra where I felt the obstruction. I could have removed the calculi and thus have given relief; but I doubt whether this would have been permanent, for directly the other calculi remaining in the bladder passed, there would be a repetition of the trouble aggravated by the constriction that takes place around the seat of such an operation.

FILARIA OCULI.

Early last May my attention was called to a young grey parrot. The owner stated that about three or four months previously he had noticed a very small thread-like worm darting about in one of its eyes. At first it appeared to cause the bird some inconvenience manifested by its rubbing the eye with the claw; but after a little while it seemed to get accustomed to the worm, and apparently did not mind it. From the time it was first noticed until I was asked to look at it, the worm grew steadily. When I saw it I think it must have been at least half an inch long and was curling and twisting incessantly in the anterior chamber.

I offered to operate on the eye and remove the worm, but as owner was going away for a month and intended taking the bird with him, he decided to wait until he came back. While he was away the worm died, and when I next saw the parrot the remains of the worm were lying at the bottom of the anterior chamber. There was a slight inflammation of the iris, manifested by a reddish tinge, and the contents of the chamber were not quite so clear as in the normal eye. I omitted to state that while the worm was living no disturbance of the normal structure was visible.

Three months after this I again saw the bird, and found the remains of the worm in a very similar shrivelled state as they were two or three weeks after its death. The eye was not quite so clear as the sound eye. but the sight did not appear affected.

TUBERCULOSIS.

We were called to see the following case for a fellow practitioner who was away at the time. The subject was a large in-calf cow which, a week before we saw it, had been driven about eight miles on a very hot day. A day or two after this she commenced breathing very quickly and lost her appetite. The owner gave a dose of salts and applied mustard to the sides of the chest. She gradually became worse, and when we were called in she was unable to get up. Her breathing was very distressed and at each inspiration there was a rattling noise in the throat.

The diagnosis was inflammation of the lungs with an impediment of some sort in the throat. A very unfavourable prognosis was given, and as she died about thirty-six hours after, this was fully realized.

Post-mortem examination revealed Miliary Tuberculosis of the Lungs, with a few old caseous centres. Around the base of the epiglottis there was a tubercular deposit; while from the mucous membrane covering the right arytenoid cartilage, a caseous tubercular mass, nearly the size of a filbert, projected into the lumen of the larynx.

[We are indebted to a M.R.C.V.S. for the above cases, and regret that his letter accompanying them has been mislaid, and his identity lost. Will he excuse us, and write again?]

MAMMARY TUMOURS.

It is seldom one sees a chondromatous tumour in the mammary gland of a bitch. I see a case described in Professor McFadyean's 'Journal of Comparative Pathology' for December. About 18 months ago, I had the pleasure of examining a tumour from that region of a bitch and was surprised to find an osteoma, instead of what was expected—an adenoma. Having rubbed down a piece of the tumour and otherwise prepared it for the microscope, the lacunæ and canaliculi could be easily made out, a certain proof of its being osseous tissue.

A Scrotal Nematode.

Another matter of interest, which I think is worth bringing forward, viz. the presence of a nematode in the scrotal sacs of colts, found during castration. It is sometimes found in colts in the North of Ireland,

It would be interesting to hear the experience of English practitioners on the latter case.

C. W. W.

RUPTURE OF THE JUGULAR.

I remember seeing a case similar to that recorded by Mr. Irving. The subject was a two-year-old filly which had got 'spiked.' The wound was about six inches long, half way up the neck, exposing the trachea, carotid, jugular, etc. It was not sutured—to allow of any discharge—but merely treated with antiseptics. In a few days the walls of the jugular having been exposed to the air became inflamed and sloughed. The animal bled a good deal, but by compression this was stopped and the animal 'picked up' again. Granulation occurred, fibrous tissue was formed, and the wound healed beautifully.

When a vessel with thin walls, like a vein, is exposed to the air its walls become inflamed and die soon, so acute is the inflammation.

Bacillus.

Royal College of Veterinary Surgeons.

QUARTERLY MEETING OF COUNCIL.

The Quarterly meeting of the Council of the Royal College of Veterinary Surgeons was held on Wednesday, January 7th, at 10 Red Lion Square. Prof. McCall President, occupied the chair, and the members of the Council present were :—Dr. Fleming, Professors Pritchard, Williams, Axe, Walley and Penberthy; General Sir Frederick FitzWygram, Sir Henry Simpson; Messrs. Wragg, Rutherford, Mulvey, Trigger, Hunting, Kidd, J. Roalfe Cox, J. F. Simpson, Barford, Walters, and Malcolm. together with Mr. Thatcher (Solicitor), and Mr. A. W. Hill (Secretary).

The notice convening the meeting having been read the Secretary read letters expressing inability to attend the Council meeting from Messrs. Cartledge, Whittle, Taylor, Briggs, Lambert, and Greaves.

The minutes of the previous meeting were taken as read and confirmed, and presentations to the library were announced from Mr. W. T. Kendal, copies of The Veterinary and Live Stock Journal, of July and October 1890, and Proceedings of the 8th special meeting of the National Veterinary Association; "Rabies and Muzzling" by Mr. T B. Goodall; the Journal of the Royal Agricultural Society of England, and the Catalogue of the Harvard University.

A letter was read from Mr. Greaves, stating his views as regards the windows in the council chamber.

The Practical Examinations.

A Letter was also read from Mr. Lambert, Chief of the Army Veterinary Department, stating that a practical examination of candidates for the Army Veterinary Department took place at Aldershot, on December 19th last. Ten candidates, all members of the R.C.V.S. presented themselves for examination, which was conducted by six experienced veterinary officers under his personal superintendence. Only two of the candidates passed, although the tests were of a very ordinary character. The practical ignorance displayed was deplorable, and would have been almost incredible had he not himself witnessed it. Many of the candidates were quite unable to tell on which leg very lame horses were going lame; many were unable to perform even common and simple operations, and were equally deficient in other ways, notably in the examination of horses for soundness. The result of the examination was not a solitary instance, but was typical, for in one which took place at Woolwich in July last the practical ignorance displayed was almost on a par with that which he now described. He had been connected with the Army Veterinary examinations for nearly thirty years, and was of opinion that the standard of practical knowledge exhibited by candidates was now no better and no worse than it had been during all that time. In the face of the above facts the question might be asked whether a thorough reform was not urgently needed in the system of practical instruction in all their teaching veterinary colleges, and also in the method of conducting the practical examination for the diploma of the Royal College. He was informed that all the candidates who were examined in July and December had been pupils of veterinary surgeons in private practices. The inference to be drawn from this was that the number of veterinary surgeons really competent to teach was by no means too abundant. He suggested that these facts should be carefully considered in discussing any scheme of compulsory pupilage.

A letter was read which had been written by the Solicitor, to the Electric Lighting Company, in regard to an alleged trespass on the property of the College in running their wires underneath the pavement in front of the College. The damage done by the Company in laying the wires having been repaired the Solicitor advised that no steps be taken in the matter.

A correspondence was read with reference to the Harvard University having regard to the recognition of the Harvard Veterinary School. On the motion of Dr. Fleming seconded by Sir Henry Simpson, the correspondence was referred to the Foreign and Colonial Schools' Committee.

Election of Honorary Associates.

The Secretary said that the following gentlemen were nominated at the last quarterly meeting as Honorary Associates, and that their names had been suspended in the usual way for three months. M. Neuman, of the Ecole Veterinaire, Toulouse; Mr. W. T. Kendal of

Melbourn e; and M. NOCARD, of the Ecole Medicine Veterinaire.

Mr. J. F. SIMPSON :—I propose that the signatures be attached to the diplomas that we proposed to give to the three gentlemen mentioned.

Prof. WALLEY seconded the motion, which was agreed to.

FINANCE COMMITTEE.

The Report of the Finance Committee, held on the 6th January, having been read Mr. Wragg moved that the report be received and adopted, and the Treasurer be empowered to draw cheques to meet outstanding liabilities.

Dr. FLEMING seconded the motion which was agreed to.

REGISTRATION COMMITTEE.

The SECRETARY read the report of the Registration Committee.

Mr. MULVEY moved that the necessary authority be given to the Solicitor to prosecute in the cases mentioned.

Prof. PRITCHARD seconded the motion which was agreed to.

Other matters mentioned in the Report were adjourned, the necessary quorum of the Council not being present.

THE CHARTER SUB-COMMITTEE.

The SECRETARY :—The sub-committee with regard to the Charter met yesterday and have yet to report to the committee which appointed them, so that their work is not complete to bring before you to-day.

Mr. HUNTING :—I do not think any report is expected from the Parliamentary Committee ; it is an instance of the confusion which arises from upsetting work done by the Council in committees. The Council appointed a committee to consider this matter of the Charter. The Committee met, and the first thing it did was to undo what the Council had done by referring the work of the New Charter to the Parliamentary Committee—the very committee which had been declined by the Council. I hold that that was not good faith to the Council, and I am inclined to think it was not a legal appointment.

The PRESIDENT :—I do not think it will be much good to discuss that question.

Mr. HUNTING :—It is not a usual thing to upset arrangements made by the Council when we get into committee.

Prof. WALLEY :—We can discuss it when brought up if necessary.

THE GENERAL PURPOSES COMMITTEE.

The SECRETARY reported that in accordance with an order made at the last Council meeting, the Chairman of the General Purposes Committee and the Treasurer met to consider the subject of the covering to the stained glass windows given by Mr. Greaves. Having taken competent advice and received an estimate, they recommended than an external covering should be put, consisting of a sheet of glass with no wood-work to interfere with the stained glass window. The cost per window would be £25.

On the motion of Mr. MULVEY, seconded by Mr. TRIGGER, the recommendation was referred back to the General Purposes Committee.

COMMITTEE *in re* KOCH'S DISCOVERY.

The SECRETARY said the committee met on the 6th January. The Secretary reported that he had written letters to Veterinary Colleges in Russia, Germany, France, Italy, Belgium, and Austria, and had received four letters in reply. The committee reported that it was desirable to enter upon a course of experiments on the lower animals with the view of testing the diagnostic and therapeutic value of Koch's Fluid ; that such experiments should be conducted at the Veterinary Colleges of London and Glasgow ; that a member of the profession should be dispatched to Berlin with all necessary letters of introduction to Dr. Koch for the purpose of obtaining the required fluid, and that Mr. Raymond be asked to undertake the mission.

Mr. MULVEY :—There is no mention made as to the cost, whether there is to be any definite sum fixed for Mr. Raymond's expenses.

Prof. WALLEY :—May I ask if there is no possibility of obtaining this lymph through the British Consulate without sending a person to Berlin specially to get it?

The PRESIDENT ;—It was thought that an application through a member of the profession might be more likely to succeed.

Mr. HUNTING ;—The Board of Agriculture has attempted through the Treasury and through the Ambassador at Berlin to get it, and has failed. Of course if we send Mr. Raymond we are very much more likely to get it, but one would think that now when the common daily papers have stopped this subject, that scientific bodies would have stopped rushing.

Mr. J. F. SIMPSON :—I do not think it is necessary for this Council to adopt the report of this Committee. This matter was referred to the special committee with power to act.

Prof. PRITCHARD :—The money was voted to scientific uses, not to this particular matter.

Mr. HUNTING :—I am perfectly certain that if it is referred to this Council no one will be sent. The three men on the committee might possibly succeed in forcing us.

Mr. J. F. SIMPSON :—Am I or Prof. Pritchard right with regard to the money that was voted? Prof. Pritchard even stated at the meeting the amount it would cost to send a man out there, so that he knew what he was voting for.

Prof. PRITCHARD :—I did not vote.

Prof. WILLIAMS :—I should think this matter would be as well left in abeyance. The lymph by-and-bye will be manufactured wholesale by the German Government, and until that is done it will be a very difficult matter to get it. We can have the lymph at little expense if we wait a very short time.

Prof. WALLEY :—May I be allowed to make a personal explanation? When the thing was first brought forward I wrote a letter to the effect that I thought the matter was premature. I do not wish it to go forth that I oppose a movement of this kind, but it appeared to me that the idea of adopting this principle for the cure of tuberculosis was perfectly absurd. The thing has taken a different ground now, and it comes to be a question of diagnosis, and not of cure at all. If it can be shown that it is of real diagnostic value, it will be of the greatest possible help to us in distinguishing between tuberculosis and pleuro-pneumonia.

Sir H. SIMPSON :—I think Prof. Pritchard is under a misapprehension in this way :—there were two resolutions proposed, and sent out on the agenda paper. The first was carried—that was that a sum of £250 should be voted. Then there was a second resolution which was adopted in this form :—"In pursuance of the resolution regarding the treatment of tuberculosis in animals the Council do forthwith ballot for a committee of seven, including the President, who is not to be ballotted for, to carry out the foregoing resolution, with full power to act." That was seconded by Mr. Trigger, and unanimously agreed to. Then the ballot took place for the Committee.

Mr. TRIGGER :—I did not second the resolution,

although I did say a few words in support of it: it must have been seconded previously.

Mr. HUNTING:—It is clear there is a misunderstanding. I beg to propose that the report of this Committee be not adopted, and, as they seem to have the power to do what they choose, that the Council request them to postpone action till some future time.

Sir HENRY SIMPSON:—It is useless for this Council to stultify itself. There can be no question that what was done was perfectly in order. The Council knew very well what they were voting about. They have ballotted for a committee of seven with full power to act, and that committee has been called together, and, of course, intends to act.

Mr. HUNTING:—We can adopt the report or not.

Sir HENRY SIMPSON:—It won't matter whether you adopt it or not: you can do as you like.

Prof. WALLEY:—Before any further discussion takes place I would ask how it is that two colleges only have been chosen at which the experiments are to be carried out. I do not see why, in a matter of this kind, which is of equal importance all over the country, the other colleges should not be included.

The PRESIDENT:—There was no one here representing the other colleges.

Prof. WALLEY:—The meeting was summoned on the spur of the moment, and you cannot expect men to come up from Scotland to be present at every meeting of that kind.

Sir HENRY SIMPSON:—An application from any college in Great Britain would have every consideration, but as a matter of order the committee were empowered by the Council to do certain things. They have undertaken that duty, and they thought proper to send this report, but really the Council, having delegated their power, cannot go behind them. I should like to ask what the effect of carrying such a resolution as that proposed by Mr. Hunting would be. We should not meet here probably for another three months, and nothing will be done. I do not believe, first of all that the Council have any right to pass a resolution of that kind, or the committee have any right to recognise it, but at the same time supposing they do pass it, you simply, after having deliberated for hours and decided by a very large majority what to do, stultify yourselves by doing nothing at all for another three months. The committee have full power to act. Supposing members of this committee having made communications to anyone are in a position to obtain this fluid, you say that the whole thing is to be postponed for another three months. You cannot pass such a resolution legally, and if you pass it you are stultifying yourselves.

Mr. HUNTING:—I will withdraw my motion, having simply protested against the action taken.

Mr. J. ROALFE COX:—I beg to propose that the names of all the principals of the colleges be added to the committee.

Mr. KIDD seconded the motion, which was agreed to.

Mr. MULVEY:—Can those names be legally added now?

Sir HENRY SIMPSON:—The Committee has been appointed with full power to act; the committee sees that there is a desire that the principals of the colleges should be present at their meetings; the committee is complete in itself, but they will be only too anxious to meet the wishes of the Council that the principals of all the schools in Great Britain should attend the meetings, but they would not have power to vote.

The SOLICITOR:—It seems to me that the electing power is with the Council, and I think they have the power to add other names. The committee is but a delegation from the Council themselves. They are simply to act and report to the Council. They certainly have power to act, but only on that power delegated to them by the Council.

Sir HENRY SIMPSON:—Personally I am very glad to hear that they can be put on.

Mr. HUNTING:—It is remarkably odd that the very gentleman who contends that committees can do as they like in altering constitutions objects to the Council doing so.

Prof. WILLIAMS:—It is not a question so much of the addition of names to the committee.

Mr. J. F. SIMPSON:—I think the matter is settled. I move that we proceed to the next business.

Prof. WILLIAMS:—I do not think this matter is concluded at all. It appears to me Sir Henry Simpson says that what his committee does cannot be reviewed by the Council. I maintain it can be both reviewed and certainly put a stop to altogether. (Hear, hear). It is the Council that has delegated their power to the committee, and if the action of the committee does not meet with our approval certainly we can withdraw that power.

Mr. J. ROALFE COX:—If it be illegal and irregular to add names to any constituted committee, then we have been illegal and irregular throughout the whole of our existence. With reference to the full power of the committee I am convinced that nothing can be done by them without submitting it previously to the Council.

COMMITTEE *in re* BURSARY TO STUDENTS.

The committee reported that, whilst acknowledging the desirability of acceding to Prof. Walley's proposition, they felt the time had not yet arrived for making the grant, but that it would be desirable to take the earliest opportunity of re-considering the matter. They recommend to the Council that the sum of £50 be annually set aside as a nucleus for encouraging scientific education.

They had received a letter from the Central Veterinary Medical Society on the 29th of October, containing the offer of a grant to the Royal College of £50 as a nucleus of a prize fund from which prizes should be offered annually to encourage special competition in anatomy.

Mr. TRIGGER moved the adoption of the report, which was seconded by Mr. ROALFE COX.

Prof. WALLEY said he looked upon this matter as one of extreme urgency. They had been too long standing aside in this matter of assisting men to go and improve themselves. He maintained that as a collegiate institution they ought long ago to have given such assistance to their graduates. They found that if anything was required in scientific work that, with the exception of two or three men in the profession, they were bound to go outside for it. The Royal Veterinary College had appointed a gentleman to carry on that work who was not in the profession at all, and surely they ought to be in a position to obtain one or other of their own graduates to fulfil the duties of such a post. The fact of the matter was that the profession did not encourage scientific studies. He should certainly oppose the adoption of the report, and move as an amendment that £75 be given annually to assist graduates to prosecute their scientific studies.

The amendment was not seconded, and the motion for the adoption of the report was agreed to.

Mr. HUNTING:—Concerning the Central letter, some answer ought to be given, and I shall propose that the Council accept the offer and instruct the Secretary to acknowledge it with thanks. The simple question is this, and it is only fair to point it out to you, that the grant is limited by the letter to anatomy, and it is for the Council to say whether they will accept the gift with any such limit. I do not think the Central Veterinary Medical Society tie themselves to anatomy, and I think

also that they will be very glad to hear any suggestion for the use of this £50 by the Council. I move that such a reply be sent.

Mr. TRIGGER ;—I will second this resolution that we accept it with the thanks of this Council.

Mr. J. F. SIMPSON :—I propose as an amendment that a letter be written asking the Society if they can see their way to withdraw the condition with regard to anatomy.

Mr. MULVEY :—I think you may rest assured there is no wish on the part of the Society that it should be confined to anatomy. It was simply a suggestion emanating from some of the members.

Dr. FLEMING seconded the amendment.

Mr. TRIGGER :—I should be very sorry if there should be a division ; it would be just as well to adopt Mr. Simpson's resolution.

Mr. WRAGG :—I feel sure that the Council of the Central will fall in with any suggestion made by this Council. There are four members of that Council here present.

Dr. FLEMING :—It would be well to have it from the Council itself. I feel perfectly certain that the Society will agree ; only we must have it on record.

The amendment was then put and agreed to.

VETERINARY SOCIETIES.

LANCASHIRE VETERINARY MEDICAL ASSOCIATION.

A quarterly meeting of the Association was held at the "Blackfriars" Hotel, Manchester, on Wednesday, 10th December, 1890. Present: Mr. W. A. Taylor, President ; Messrs. Wm. Hunting, Peter Taylor, T. Greaves, J. D. Wolstenholme, E. Faulkner, T. Hopkin, R. Moore, A.V.D., W. F. Shore, Alex Lawson, S. Locke, W. Dacre, E. C. Edwards, — Carter, E. S. Gubbin, T. Hart, T. Briggs, E. Noar, — Kilsell, H. Ferguson, — Bridge, J. Urmson, A. Leather, W. Hall, A. Michaelis. The members sat down to tea at five o'clock ; after which the minutes of the last meeting were read and confirmed.

Letters of apology were read from Professors Williams and McCall ; Messrs. Henry Thompson, R. Hughes, P. Pike, Jos. Abson, T. Leather, W. Whittle, E. Neild-Siddall, and C. W. Elam. A letter resigning his membership was read from Mr. J. Sutcliffe Hurndall. This was accepted with regret, it being well known that only distance prevented Mr. Hurndall from attending.

Mr. A. LEATHER nominated for membership, Mr. Roberts, M.R.C.V.S., of Liverpool.

The PRESIDENT explained why no action had been taken with respect to the resolution of last meeting—appointing a sub-committee to draw up a resolution on the New Pleuro-Pneumonia Act—and it was proposed by Mr. P. Taylor and seconded by Mr. Locke, that no further steps be taken in the matter.

The PRESIDENT then called on Mr. Hunting to read his paper.

THE USE AND VALUE OF POSITION AND ACTION AS INDICATIVE OF LAMENESS.

Mr. HUNTING commenced by a review of the normal position of the horse's limbs when at rest, and of their action during locomotion. He then referred to the various alterations which are noticed in cases of lameness, and asked—what is the value of position and action as indicative of lameness? He concluded that their value was over estimated, and that there were not many lamenesses which could be definitely diagnosed by action alone, nor even by peculiarities in position of the limb. From the general question he passed on to consider in detail the various regional lamenesses, and his conclusions may be shortly summed up as follows :

Shoulder. The position of the limb and its action does indicate the region affected, but it does not definitely show the seat of injury. Very similar alterations of position and action result from such widely different accidents as sprain of the Flexor Brachii, of the Extensor Brachii, of the Spinata Muscles, or even of the joint. In each of these we have indications suggesting some injury to the region of the shoulder, but the whole of the muscles of the region are so interdependent on each other that failure of one affects all the rest, with the result that the shoulder cannot be raised and the proper angle of its bony elements be maintained.

Elbow. The excessive dropping of the leg during progression which is noticed in these cases is not diagnostic. It is seen in injuries which often have their seat higher up.

Knee. The essayist expressed his distinct disbelief in any definite form of action being diagnostic of lameness affecting this joint, unless it was of such degree as to visibly prevent flexion. Digital lameness possessed no special action, and caused no peculiar position of the limb which was not seen in cases affecting other parts. When Ringbone was well developed there was a clear want of motion in the joint which was indicative. He did not think that the difference stated to exist between the movements of a leg affected with ringbone in front and behind were always noticeable. In the fore limb ringbone caused the foot to come to the ground heel first, but he had not noticed that in the case of a hind foot so affected the toe first came to the ground.

Hip. Lameness of this region, it was pointed out, was common enough ; in cases of fracture these, when accompanied by no displacement, ought to show a definite action if such ever existed. There is certainly something almost indicative in the action of hip lameness, but the same condition—the limb being carried all in a piece—is seen in some acute foot lameness. Mr. Hunting characterised such action as well described by a horsey man who was looking at a case of lameness when he said "well he's lame at one end or the other." We can only get about as far as this by action alone—we can suspect either foot or hip, and then must resort to close local inspection to determine the exact seat.

Stifle. Here is a joint, said the essayest, which can by no possibility give rise to diagnostic action by any diseased condition. Any peculiarity of movement of the hind leg which alters the motion of the stifle must also alter the action of the hock. Both hock and stifle must move together, as the bones which form them are so connected by tendons and ligaments as to retain always a similar relation. Flexion of hock must be accompanied by flexion of stifle, and the amount of flexion is always equal in both joints.

When any of the connecting structures are divided or paralysed then we have very remarkable movements of the limb which are truly diagnostic of the lesion—as for instance in rupture of the gastrocnemius muscle, or of the flexor metatarsi.

Hock. Many men profess to diagnose hock lameness by the action, and they are very often right, but there is no definite action peculiar to a lame hock. As far as motion goes it might be the stifle, but as in ninety cases out of a hundred the stifle is not affected it is a fair practical guess to say it is the hock. But even putting aside the stifle as a source of error in diagnosing hock-action, Mr. Hunting seemed inclined to doubt whether movements of the hind leg could be depended on as in-

dicating the region affected, and he related two cases of injury to the pedal bones which had been credited to the hock until a *post-mortem* examination revealed the true seat of lameness.

The Foot. This region, it was allowed with qualifications, did give some indication by its position or movement of lameness affecting its structures. The position of "pointing" was indicative of foot lameness, and and there was a peculiarity more easily detected than described, which enabled some men to very positively locate the lameness to the foot—more especially in the fore limb.

Discussion.

Mr. Dacre opened the discussion by exhibiting a morbid specimen showing the effect of a puncture on the fetlock joint. Some pointed object had entered behind the fetlock joint of a fore leg and set up acute inflammation. As a rule pain in a joint resulted in flexion, but in this case the horse seemed to be in least pain when the foot was firm and square on the ground in its normal position. Motion was accompanied by great pain.

Mr. Peter Taylor discussed the various lamenesses, and gave a general support to the statement that action was not of itself very indicative of the seat of lameness. He said the longer he lived the less positive he became in his diagnosis, and he recognised that very often the most expert practitioner might see a lame horse whose action taught nothing, either as to the seat or nature of the injury. He impressed the necessity of examining the foot carefully in all cases. As to the statement that 80 per cent. of fore-leg lameness was in the foot he was not prepared to admit it, except with the important qualification of age—it held in aged but not in young horses. He considered the hock-lamenesses were the most difficult subjects in the whole list. Not only could action not be depended on as diagnostic, but even the structural changes and local signs were not always to be relied upon, as was shown by the very diverse opinions expressed by different men on the same case.

Mr. Thos. Greaves said that in elbow lameness he looked upon one peculiarity as diagnostic, viz., that the animal could not back, and when compelled to do so the limb was dragged. He had hoped to hear more on the subject of bent fore-legs in cab and 'bus horses, which he suggested were due to atrophy of muscle.

Mr. Edwards said time would not permit him to go through the long list of lamenesses, but he should like to mention a condition which, in his experience, was an instance of a specific motion indicative of lameness in a certain part. In cases of injury to the hind foot, the animal moved with a long step—the foot being placed far under the body.

Mr. Faulkner expressed his general agreement with the conclusions of the paper.

Mr. Wolstenholme discussed the question of "bent leg."

Mr. Briggs agreed with Mr. Greaves that the inability of the horse to back was very indicative of elbow lameness. In reference to the cases of "dropped" shoulder he believed many of them were due to sprain of the *serratus magnus*.

Mr. Moore also spoke, and related cases which had come under his notice in the Army Veterinary Department.

Mr. Hart said he thought he had noticed a peculiarity in the mode of moving the limb in ringbone—the heel was raised from the ground preliminary to moving the foot. When ringbone affected the hind leg the foot was extended, but just before being placed on the ground was retracted a little. This movement he thought special to ringbone.

Mr. Locke, in the course of his remarks, referred to the peculiarity of action in painful lameness of the foot. The foot no sooner touched the ground than it was removed with a sharp upward lift indicative of pain.

Mr. Hopkin related some cases of injury to the shoulder caused by horses falling in the shafts. On the animals being raised the limb was found powerless, the shaulder "dropped," as in cases of muscle sprain, but recovery was rapid—so rapid that the lesion could not have been one of serious structural injury. He thought the cause was pressure of the shaft on the elbow as the animal lay on the ground. In elbow lameness he certainly had seen the horse stand with the foot of the injured limb behind the level of the sound one. As to hind leg lameness he was not prepared to accept Mr. Hunting's statement that hock and stifle must always act together. He thought he had seen cases in which these joints acted so independently of each other as to allow a decidedly altered motion of one of them.

Mr. Alex. Lawson related a case of Carpitis, in which the action of the joint clearly indicated the seat of lameness. In all cases of lameness which were not evidently due to some visible injury, he agreed with Mr. Taylor that we should examine the foot. As to hock lameness some were very easy, because we had definite local changes, as well as the action of the lame animal, to guide us, but there were other cases in which there was nothing to be seen, but which were undoubtedly due to changes in the joint. In such cases the absence of other disease or injury was, in conjunction with the action, our sole guide to diagnosis.

Mr. Hunting in reply said he had first to thank the members for the patient hearing they had given him, and next for the very interesting discussion they had raised. He had hoped to elicit from their practical experience some observation which would assist them all in diagnosis, and he was glad to have heard two or three which he should test at the earliest moment. Mr. Edwards had mentioned the long step taken by a horse with an injured hind foot; Mr. Briggs and Mr. Greaves both referred to the difficulty of backing a horse with elbow lameness; Mr. Hart noted a peculiarity in movement of the foot in ringbone; and Mr. Locke the snatch of a foot from the ground when that organ suffered from a painful injury. All these were matters which deserved attention, and perhaps there were still other litttle matmers of a similar kind which would be brought to mind by this discussion. Mr. Briggs had suggested sprain of the *Serratus Magnus* muscle as the cause of many of the "dropped" shoulder cases. This was new to him, and seemed so likely to be correct that he should not forget to verify it whenever he got the chance. Mr. Greaves and Mr. Wolstenholme had referred to "bent-legs." Had time permitted he should have liked to enter more into this question. His own belief was that nearly all cases were traceable to tenderness in the feet, and that it always came about by passive shortening of the tendons. Some cases might be due to the extensor muscles not having tone enough to keep the bones in their proper vertical position, but most were due to the horse voluntarily relaxing his muscles and allowing the knee to go forward as a position in which painful feet were the least painful. The tendons then shortened to adapt themselves to the altered angles of the bones. Tired extensor muscles and tenderness in the feet were the chief causes of bent legs. In reply to Mr. Hopkin's remark, that he thought he had seen cases where the hock and stifle joints did not move in exact unison, he could only say that when that happened there must have been some defect in the connecting structures. In support of the practical axiom—always examine the foot. Professor Dick's name had been mentioned, and an old tale retold of his wonderful skill in diagnosing foot injury in addition to other and more patent lesions. Mr. Hunting said he was willing to allow Professor Dick

very great acuteness, but he could not allow that a happy guess should be accepted as a sort of intuitive talent. It did much harm to inculcate the idea that lameness was diagnosed by some practitioners with preternatural sharpness, and that their diagnosis was founded on real observation and quick deduction. We all make mistakes, we are all very often puzzled, and if we do not confess our ignorance we should not confuse the issue by classing together lucky guesses and careful diagnoses. It is the man who knows most and who sees clearest that most frequently feels that his opinion on a case of lameness is not too surely founded.

A cordial vote of thanks was accorded Mr. Hunting for his very able and instructive paper.

The following office-bearers were elected for the ensuing year: President, Mr. A. Leather; Vice-Presidents, Messrs. Hugh Furguson and A. Michaelis: Treasurer, Mr. Tedbar Hopkin: Secretary, Mr. G. Gartside Mayor: Auditors, Messrs. John and Alex. Lawson.

A hearty vote of thanks to the retiring Chairman concluded the meeting.

W. F. Shore, M.R.C.V.S.
Secretary, pro tem.

NATIONAL VETERINARY BENEVOLENT AND MUTUAL DEFENCE SOCIETIES, 1890.

List of Subscriptions, 1890.

	£	s.	d.
Mr. Olver ...	1	1	0
R. C. Trigger	0	10	6
F. G. Sampson	0	10	6
J. C. James ...	0	10	6
J. Overed ...	0	10	6
S. Locke ...	0	10	6
C. Sheather ...	0	10	6
E. Nuthall ...	0	10	6
W. Whittle ...	0	10	6
H. Thompson	0	10	6
J. Freeman ...	0	10	6
W. Bowers ...	0	10	6
A. E. Gibson	0	10	6
W. H. Webb	0	10	6
E. A. Leach ...	0	10	6
E. Oliver ...	0	10	6
H. W. Caton	0	10	6
E. Rugg ...	0	10	6
E. Banham ...	0	10	6
R. Cox	0	10	6
R. S. Reynolds	0	10	6
F. Dunn ...	0	10	6
J. B. Taylor...	0	10	6
H. Hogben ...	0	10	6
Mr. T. G. Chesterman	10	6	
H. J. Goodall	0	10	6
Wm. Woods...	0	10	6
Prof. Walley	0	10	6
Mr. Wm. Roots	0	10	6
Wm. Carless...	0	10	6
Elam & Jackson	1	1	0
R. C. Edwards	0	10	6
Morgan ...	0	10	6
J. M. Axe ...	0	10	6
Peter Taylor & Son	1	1	0
R. Cartwright	0	10	6
Osborn Hill...	0	10	6
Batt & Son ...	1	1	0
B. Cartledge...	0	10	6
R. Ridler ...	0	10	6
T. E. Auger	0	10	6
Edwin Faulkner	0	10	6
P. M. Walker	2	2	0
H. Olver ...	0	10	6
R. Mackinder	1	1	0
C. Moir... ...	0	10	6
F. Danby ...	0	10	6
Mr. W. Dobie ...	0	10	6
T. D. Broad...	0	10	6
J. Anderton...	0	10	6
F. Deighton...	0	10	6
Scriven ...	0	10	6
J. Bale	0	10	6
T. Aubery ...	0	10	6
T. Baker ...	0	10	6
J. Rowe ...	0	10	6
F. T. Stanley	0	10	6
T. Secker ...	0	10	6
T. Hopkin ...	0	10	6
A. Over ...	0	10	6
Ball & Son ...	1	1	0
T. Barker ...	0	10	6
T. Collins ...	0	10	6
B. Russell ...	0	10	6
J. Ferguson	0	10	6
James Storrar	0	10	6
J. S. Carter...	0	10	6
J. & A. Lawson	1	1	0
T. D. Lambert	0	10	6
W. F. Peacock	0	10	6
Wolstenholme	0	10	6
Mr. T. Pratt ...	0	10	6
J. Woodger ...	0	10	6
W. A. Field...	0	10	6
Thos. Greaves	0	10	6
A. R. Perrins	1	1	0
T. A. Dollar	0	10	6
E. Newsom ...	0	10	6
W. Williams	0	10	6
Ferguson ...	0	10	6
T. Briggs ...	0	10	6
Leather & Son	4	4	0
T. W. Cave ...	1	11	6
Beddard ...	0	7	6
Beddard ...	0	3	0
G. E. Bowman	1	11	6
A. H. Jacobs	1	11	6
James Clarke	1	1	0
H. Blunt ...	1	11	6
J. L. Barling	0	10	6
C. Hartley Ent Fee and Sub.	1	11	6
Kitchen ...	1	1	0
	£63	10	6

Financial Statement from January 1st to December 31st, 1890.

DEFENCE FUND.

RECEIVED.

	£	s.	d.
Balance in Bank, Jan. 1, 1890 ...	501	2	9
Subscriptions in 1890	63	10	6
Bank Interest, June	5	14	3
„ December	4	1	3
Cash in hand, Jan. 1, 1890	4	6	4
Excess of Cash put into Bank	3	9	6
	£582	4	7

PAID.

		£	s.	d.
April 22.	Mr. C. Moir	17	18	6
Mar. 29.	Cobbet & Wheeler	0	10	6
Sept. 20.	Rooms	0	15	0
	Wrappers, Stamps, &c., &c. ...	2	0	0
	Sundry other Expenses ...	1	0	10
Sept. 12.	Transferred to Benevolent Fund	400	0	0
Dec. 31.	Cash in Bank	159	19	9
		£582	4	7

BENEVOLENT FUND.

RECEIVED.

	£.	s.	d.
Balance in Bank, Jan. 1, 1890 ...	463	0	8
„ Mersey Docks	1900	0	0
Donation—Sir F. Fitzwygram ...	1	0	0
Four Dividends from Mersey Docks ...	73	7	4
Bank Interest, June and December...	9	6	7
From Defence Fund	400	0	0
	£2846	14	5

PAID.

		£	s.	d.
Sept. 29.	Invested in Corporation of Manchester	900	0	0
	In Mersey Docks ...	1900	0	0
Dec. 31.	Cash in Bank	46	4	7
	„ in hand	0	10	0
		£2846	14	7

Thomas Greaves, *Hon. Treasurer.*

January 13th, 1891.—Audited and found correct,
Edwin Faulkner.
Jno. B. Wolstenholme.

EXTRACTS AND NOTES.

PROFESSOR VIRCHOW ON KOCH'S REMEDY.

On Wednesday, before the Medical Association of Berlin, Professor Virchow continued his lecture on the fatal cases following treatment by the Koch method. A very animated debate ensued, in the course of which Professors Albert Fränkel and Baginsky gave cases in which Professor Virchow's assertion that by the use of the remedy the tubercular disease is even sometimes transferred from diseased parts to perfectly sound organs, appeared to be confirmed. In one case a patient, when he came into hospital, was suffering only from a slight catarrah, and died from severe tuberculous pneumonia, in spite of the injections. In the second case a patient suffering with a cough, and having in his sputa tubercular bacilli, showed, after four weeks of the treatment, numerous tuberculous ulcers on the tongue, in which bacilli were found. Besides this, a large tuberculous tumour formed. In a third case, localised tuberculosis of the nose spread during the treatment over the interior surface of the cheek, and soon after to the tonsils. The opinion gains ground that Dr. Koch's remedy may prove successful in the primary stage of tuberculosis, but that its application is at all events rather hazardous. Professor Virchow said he had nothing against the remedy, but wished only to give a warning concerning its application.—*Daily News.*

DR. KOCH'S LYMPH.

Further Explanation by the Discoverer.

The *Deutsche Medizinische Wochenschrift* contains (Reuter telegraphs from Berlin) the promised article by Dr. Koch upon the composition of his remedy for tuberculosis, and the manner in which he came to discover it. The article says:—

Since the publication two months ago of the results of my experiments with the new remedy for tuberculosis, many physicians have received the preparation, and have been enabled to make themselves acquainted with its properties through their own experiments. As far as I have been able to review the statements which have been published and the communications I have received by letter, my indications have been fully and completely confirmed.

So long as it was only a question of proving the accuracy of my indications there was no need for anyone to know what the remedy contains or whence it is derived. On the contrary, the subsequent testing would necessarily be the more unbiassed the less people knew of the remedy itself. But now that this confirmatory testing has been, as it appears to me, sufficiently carried out, and has proved the importance of the remedy, the next task is to extend the study of the remedy beyond the field of its heretofore application, and if possible to apply the principles underlying the discovery to other diseases also. This task naturally demands a full knowledge of the remedy, and I therefore consider the time to have come when the requisite indications in this direction should be made, and this will be done in what follows.

Before I go into the remedy itself. I deem it necessary, for the better understanding of its mode of operation, to state briefly the way by which I arrived at the discovery. If a healthy guineapig is inoculated with the pure cultivation of the tubercle bacilli the inoculation wound mostly closes over with sticky matter and appears in the early days to heal. It is only after ten to fourteen days that a hard nodule presents itself, which soon breaking forms an ulcerating sore until the death of the animal. Quite a different condition of things occurs when a guineapig which is already suffering from tuberculosis is inoculated. The best adapted for this purpose are animals which have been successfully inoculated four to six weeks before. In such an animal the small inoculation assumes the same sticky covering at the beginning, but no nodule forms. On the contrary, on the following or on the second day the place of inoculation shows a strange change. It becomes hard and assumes a darker colouring, which is not confined to the inoculation spot, but spreads to the neighbouring parts until it obtains a diameter of 0·5 to 1 centimetre. In the course of the next few days it becomes more and more manifest that the skin thus changed is necrotic; and it finally falls off, leaving a flat ulceration, which usually heals rapidly and permanently without any cutting into the adjacent lymphatic glands. Thus the injected tubercular bacilli have a quite different effect upon the skin of a healthy guineapig from that of one affected with tuberculosis. This effect is not exclusively produced with living tubercular bacilli, but is also observed with dead bacilli, the result being the same whether, as I discovered by experiments at the outset, they are killed by somewhat prolonged application of low temperatures, or boiling heat, or by means of certain chemicals. This peculiar fact I followed up in all directions; and this further result was obtained—that killed pure cultivations of tubercular bacilli after being rinsed in water, might be injected in great quantities under the skin of a healthy guineapig without anything occurring beyond local suppuration. [Professor Koch here interpolates a note to the effect that such injections belong to the simplest and surest means of producing suppuration free from living bacteria.] Tuberculous guineapigs, on the other hand, are killed by the injections of very small quantities of such diluted cultivations—in fact, within six to forty-eight hours, according to the strength of the dose. An injection which does not suffice to produce the death of the animal may cause extended necrosis of the skin in the vicinity of the place of injection. If the dilution is still furthers diluted so that it is scarcely visibly clouded, the animals inoculated remain alive. There soon supervenes a noticeable improvement in their condition. If the injections are continued at intervals of one to two days, the ulcerating inoculation wound becomes smaller and finally scars over, which otherwise is never the case. Further, the swollen lymphatic glands are reduced in size; the body becomes better nourished, and the morbid process comes to a standstill, unless it has gone too far and the animal perishes from exhaustion. By this means the basis of the curative process against tuberculosis was established.

Against the practical application of such dilutions of ddad tubercle bacilli there presented itself the fact that the tubercle bacilli are not absorbed at the inoculation points, nor do they disappear in another way, but for a long time remain unchanged and engender greater or smaller suppurative foci. Anything, therefore, that was to exercise a healing effect on the tuberculous process must be a soluble substance, whicd would be lixiviated to a certain extent by the fluids of the body, and be transferred fairly rapidly to the juices of the body, while the substance which produces suppuration apparently remains behind in the tubercle bacilli, or in any case dissolves but very slowly. The only important point, therefore, was to bring about outside the body the process which goes on inside, and if possible to extract from the tubercular bacilli alone the curative substance. This

demands much time and toil, until I succeeded at last, with the aid of a 40 to 50 per cent. solution of glycerine, in obtaining the effective substance from the tubercular bacilli.

The remedy with which the new treatment against tuberculosis is practised is thus a glycerine extract from pure cultivations of the tubercle bacilli. Into the simple extract there naturally passes from the tubercular bacilli besides the effective substance all the other matter soluble in 50 per cent. glycerine. Consequently there are in it a certain quantity of mineral salts, colouring substances, and other unknown extractive matter. Some of these substances can be removed from it tolerably easily, however, this purification of the glycerine extract offers no advantage, because substances so eliminated are unessential and the process of purification would increase the cost. As regards the constitution of the more effective substance only surmises may for the present be expressed. It appears to me to be a derivative from albuminous bodies and to have a close affinity to them. It does not belong to the group of so-called toxalbumens, because it bears high temperatures, and in the dialyzer goes easily and quickly through the membrane. The proportion of the substance in the extract is to all appearance very small. I estimate it at fractions of one per cent. If my assumption is correct, we should, therefore have to do with a matter the effect of which upon organisms attacked with tuberculosis goes far beyond what is known to us of the strongest drugs.

Regarding the manner in which the specific action of the remedy on tuberculous tissue is to be represented, various hypotheses may naturally be put forward. Without wishing to affirm that my view affords the best explanation, I represent the process to myself in the following manner:—The tubercle bacilli produce when growing in living tissues, just as artificial cultivations do, certain substances which variously and notably unfavourably influence the living elements in their vicinity. Among these is a substance which in a certain degree of concentration kills the living protoplasm, and so alters it that it passes into the condition described by Weigert as coagulation necrosis. In the tissue which has thus become necrotic, the bacillus finds such unfavourable conditions of nourishment that it can grow no more, and sometimes finally dies. This is how I explain the remarkable phenomenon that in organs which are newly attacked with tuberculosis, as for instance in the spleen and liver of a guineapig, which is covered with grey nodules, numbers of bacilli are found, whereas they are rare or wholly absent when an enormousiy enlargsd spleen consists almost entirely of a whitish substance in a condition of coagulation necrosis, as is often found in cases of natural death in tuberculous guineapigs. The single bacillus cannot, therefore, bring about necrosis at a great distance; for, as soon as the necrosis has attained a certain extension, the growth of the bacillus subsides and therewith the production of the necrotizing substance. There thus occurs a kind of reciprocal compensation which causes the vegetation of isolated bacilli to remain so extraordinarily restricted, as, for instance, in lupus, scrofulous glands, etc. In such a case the necrosis generally extends only to a part of the cells, which then, with further growth, assumes the peculiar form of the *riesenzelle*, or giant cell. Thus, in this interpretation I follow the first explanation given by Weigert of the production of giant cells. If, now, one were to increase artificially in the vicinity of the bacillus the amount of necrotizing substance in the tissue the necrosis would spread to a great distance and thereby the conditions of nourishment for the bacillus would become much more unfavourable than usual. In the first place the tissue which had become necrotic over a larger extent would decay, detach itself, and, where such were possible, carry off the enclosed bacilli and eject them outwardly; and in the second place the bacilli would be so far disturbed in their vegetation that they would much more speedily be killed than under ordinary circumstances. It is just in the evoking of such changes that the effect of the remedy appears to me to consist. It contains a certain quantity of necrotizing substance, a correspondingly large dose of which injures certain tissue elements even in a healthy person and perhaps the white blood corpuscles or the cells adjacent thereto, and consequently produces fever and a quite remarkable complication of symptoms. With tuberculous patients, on the other hand, a much smaller quantity suffices to induce at certain places, namely, where the tubercle bacilli are vegetating and have already impregnated the adjacent region with the same necrotizing matter—more or less extensive necrosis of the cells together with the phenomena in the whole organism which result from and are connected with it. In this way, for the present at least, it is possible to explain the specific influence which the remedy in accurately defined doses exercises upon tuberculous tissue, and further the possibility of increasing these doses with such remarkable rapidity, and the remedial effects which have been unquestionably produced under not too favourable circumstances.

CORRESPONDENCE.

We shall be obliged by early intelligence of all matters worth bringing under the notice of the profession, and thankful to any friends who may send us cuttings from local papers, containing facts of interest.

Original articles and reports should be written on one side only of the paper, and authenticated by the names and addresses of the writers, not necessarily for publication.

Communications for the Editor to be addressed 20 Fulham Road, S.W.

THE HYGIENIC CONGRESS.

SIR,—I was glad to see you draw attention to this Congress which is to be held in August. Probably many, like myself, never heard of it before, or our Body Corporate might have assisted at it. The question of transmissible diseases from animals to man is one we practitioners are now much interested in, and the important questions of flesh and milk with the possibility of their carrying disease is one Professors Axe, Walley and McFadyean have devoted much attention to. More than once great injustice has been done to butchers and dairymen; and medical officers may derive much help and guidance from our experience.

In a published list of names connected with the Congress I note those of Professors Brown and Duguid, Dr. Fleming and Mr. Cope. All these gentlemen must have known for some time of the proposed Congress, and it seems strange that none of them should have appealed to the Royal College to join the movement. These names are of well known men and would doubtless have well represented us, but as it is they simply represent themselves. It would have been better for the profession, and I venture to think better for them if they had taken the Corporate Body into their confidence, and so have enabled it to make a formal public appearance. Their personal prominence would not have been detracted from if they had obtained the *imprimatur* of the profession to which they belong.

Yours obediently, T. A.

[Several articles and extracts, together with a letter from Mr. Jas. Blakeway, are unavoidably held over till next week.]